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TITLE: Automated system and method for
delivery of messages and
processing of message responses

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Abstract Text - ABTX (1):

An automated system for delivery of messages to multiple recipients, and for processing of responses to the messages, includes a message client, message server, and system database. A message is created using a universal message form. The message content can be translated into multiple formats and sent to one or more different recipients using one or more different types of messaging devices, including pagers, telephones, fax machines, and e-mail readers. A recipient profile manager allows each recipient to select the messaging devices to be used for message delivery as well as preferred messaging schedules, priorities, and message security. Receipt of the messages by the recipients is verified, response requirements collected and consolidated from multiple sources and presented to the message originator in a structured format.

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Brief Summary Text - BSTX (3):

Businesses and their employees are actively involved in sending and receiving information using a variety of messaging formats,

systems, and message receiving devices. For example, a traveling employee might, in a single trip away from the office, receive messages sent by fax, pager, electronic mail (e-mail), and voice mail. In addition, the messaging devices by which these messages are actually received might include a pager, a cellular telephone, a paper fax machine, a voice mailbox, or a portable computer connected to the Internet or to a private local area network (LAN). Often these messages will vary in their level of importance. This could affect the delivery methods and/or the nature and timing of any needed response to the message. For example, the arrival of an e-mail message from a particular sender might cause the recipient to fax a report in response. A message reporting a failure in a mission-critical computer system may need an immediate response from a maintenance technician that the message has been received and will be acted on. A message reporting a fire or other disaster may need to be sent simultaneously, or in a notification hierarchy, to multiple members of a disaster response team, with escalating methods of messaging and response gathering to insure that every team member has been notified and has responded in an appropriate fashion. In some group messaging contexts, the post-message processing, organizing, and reporting of multiple message responses can be important in further decision making by the message originator.

Brief Summary Text - BSTX (6):

Other media specific device systems address e-mail to pager, pager to e-mail, e-mail to fax, and e-mail to voice, but do this separately. In a typical conventional system of this type, e-mail messages

are created,
addressed to specific devices, and sent to those devices
using the
device-specific translation programs required.
Commercially available servers
route messages to recipients chosen by the sender for
specific types of
messaging devices through public-switched telephone
networks (PSTN), over the
Internet, and at non-peak periods through PSTN using least
cost routing
methods.

Detailed Description Text - DETX (18):

FIG. 5 presents an overview of the flow of information
through the Messaging
Device Manager 5 used to convert messages into the proper
communications format
for receipt and response by the recipients messaging
devices according to the
present invention. Messages from Message Author 2 flow
into the Messaging
Device Manager 5 where they are sorted into media folders
for fax 186, voice
188 and pager 190 formatting. The media folders process
the appropriate
communications through the media translator 192, creating
new message formats
and addresses based on the recipient information received
and messaging devices
to which the messages are destined. The Messaging Device
Manager 5 then sends
the new messages out to the recipients messaging devices
through the media
router 194 which delivers translated information
simultaneously over the
Internet and PSTN through various conventional third-party
telecommunication
gateways. E-mail messages are sent directly to recipient
e-mail devices
through the Internet. Recipient responses are received and
processed by the UN
Server Notification module as shown in FIG. 3.

Detailed Description Text - DETX (31):

The Messaging Device Manager 5 is a separate module that interacts with gateways. The interface to standard gateways (e.g., pager, phone, and fax) is an e-mail message with a specially formatted address that indicates for which gateway it is destined. However, each gateway requires a slightly different **message format**. The Messaging Device Manager 5 performs the necessary conversions automatically.

Claims Text - CLTX (1):

1. A system for sending messages to messaging devices used by recipients and for processing message responses from the recipients comprising: a. a message client comprising a message authoring module to allow a user to generate message content and message information using a universal message form, the message authoring module including means to embed a response field in the message form so that message recipients can add message responses to the form; b. the message client further including a recipient profile module, to allow each recipient to create a recipient profile corresponding to that recipient, the recipient profiles including profile data selected by each recipient that define message delivery devices and message delivery methods for messages directed to that recipient, according to messaging rules created by the recipients that include message priority, messaging device security, and time; c. a message server operatively connected to the message client for receiving the message information from the message authoring module and including a **translator** for automatically converting the message form and message content into one or more **message formats** usable by the messaging devices selected by the recipients in their corresponding

recipient profiles;
d. the message server further including a messaging device manager for automatically routing the messages to at least one of the messaging devices selected by the recipients in their recipient profiles in accordance with the messaging rules created by each recipient and a response monitor module for receiving and automatically processing the message responses from the recipients into message response information; e. a system database for storing the recipient profiles, messages, and message response information, the message response information including identification of the recipients, status of message delivery, substance of responses to questions imbedded in the response field imbedded in the message form, identification of the messaging device(s) used to deliver the message, and time of response; and f. a response viewer module for allowing the user to view the message response information, including a compilation of the message responses added to the response fields in the message form by the recipients.

Claims Text - CLTX (9):

9. The system of claim 1 wherein the translator and messaging device manager are adapted for translating the message form and content of a single message intended for a single recipient into a plurality of message formats for transmitting the single message to messaging devices of different types when more than one messaging device has been selected by the recipient in the recipient's corresponding recipient profile.

Claims Text - CLTX (10):

10. The system of claim 9 wherein the message client and message server are

operative to generate a single message for delivery to multiple recipients using the universal message form to create the message and the translator and messaging device manager are further operative to translate the message content of the single message into a plurality of message formats for transmitting the single message to messaging devices of different types when more than one messaging device has been selected by one or more of the multiple recipients in the recipients' corresponding recipient profiles.

Claims Text - CLTX (21):

21. A method of allowing a user to send a message to a recipient using at least one messaging device comprising the steps of: a. creating message content and message information for the message on a universal message form at a message client, the message information including identification of the recipient for the message; b. automatically accessing a recipient profile stored in a database, the recipient profile created by the recipient and containing information identifying a type of messaging device selected by the recipient for receiving the message, in accordance with messaging rules created by the recipient, the messaging rules taking into account message priority, the recipient's schedule, and device security; c. translating in a message server the message form and content into a message format usable by the type of messaging device selected by the recipient in the recipient profile; d. transmitting the message to a messaging device manager adapted to communicate with the messaging device selected by the recipient in accordance with the messaging rules created by the recipient; e. receiving in the message server a response to the message sent by the recipient using one of

the types of
messaging devices; f. automatically linking the response
to the message to the
message information created on the message client; and g.
viewing the message
response on the message client, h. identifying multiple
recipients for the
message in the message information; i. accessing multiple
recipient profiles
in the database corresponding to the multiple recipients
identified in the
message information; j. transmitting the message to the
messaging device
manager adapted to communicate with each messaging device
selected by the
recipients; k. receiving in the message server a response
to the message sent
by each of the recipients using the messaging devices; l.
automatically
linking each of the responses to the message to the message
information created
on the message client; m. storing the message responses
and message response
information on the database the message response
information identification of
the recipients, status of message delivery, substance of
responses to questions
imbedded in the response field imbedded in the message
form, identification of
the messaging device(s) used to deliver the message, and
time of response; and
n. organizing the message responses for viewing on the
message client.